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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/710,910
Filing Date: August 12, 2004
Appellant(s): HOFSTADER ET AL.

Michael J. Colitz, III (Attorney)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 27, 2007 appealing from the Office

action mailed March 6, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings

which will directly affect or be directly affected by or have a bearing on the Board's decision in

the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after non-final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,572,625	RAMAN et al.	11-1996
6,085,161	MACKENTY et al.	07-2000
2002/0105496	GIULIANI et al.	08-2002
4,836,784	BURCHART	06-1989
5,186,629	ROHEN	02-1993

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-9 and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Raman et al. ("Raman", US 5,572,625) in view of MacKenty et al. ("MacKenty", US 6,085,161).

As per claim 1, Raman teaches a screen reader software product comprising:

a reader module communicatively coupled with resident software on a computer, the

reader module adapted to collect textual and non-textual display information generated by the

resident software (col.4, lines 21-38);

a broadcast module communicatively coupled to the reader module, the broadcast module

adapted to communicate the display information collected by the reader module to an output

device (col.4, lines 46-55); and

a schema module communicatively coupled to the broadcast module, the schema module

adapted to send non-textual display information with associated textual display information to

the output device in substantially concurrent fashion (col.3, lines 44-50).

However, Raman does not explicitly teach the reader module to be a screen reader

module. MacKenty teaches a screen reader module which manipulates the flow of data as it is

output to the screen allowing the user to choose portions of the document to listen to (MacKenty,

Fig.1, *reader 14*; col.3, lines 14-15; col. 4, line 59- col.5, line 5; col.2, lines 18-24; col.5, lines

38-65). It would have been obvious to one of ordinary skill in the art at the time of the invention

to include MacKenty's teaching with Raman's product in order to allow the user the ability to

manipulate the reading of the document as a sighted individual would be able to.

As per claim 2, Raman teaches the output device to be a speech synthesizer (col.4, lines

50-55).

As per claim 3, Raman teaches the software product wherein the non-textual display

information is selected from the group consisting of font format, paragraph format, bulleting,

numbering, borders, shading, column format, page breaks, section breaks, tab settings, table

structure, image data, case settings, comment field locations, hyperlink settings, data entry forms,

and graphic user interface configuration (col.15, lines 10-20; col.20, lines 66-67; col.22, lines 15-17).

As per claim 4, Raman teaches the software product wherein the schema module modifies the broadcast of the textual display information to communicate the non-textual display information by altering characteristics of the speech synthesizer, the characteristics selected from the group consisting of pitch, speed, volume, emphasis, simulated gender, simulated accent, simulated age, and pronunciation (col.18, lines 49-55; col.21, lines 20-21).

As per claim 5, Raman teaches the software product wherein the schema module includes an additional audio output layer to the broadcast of the textual display information to audibly communicate the non-textual display information in substantially concurrent fashion with the synthesized text (col.3, lines 3-7).

As per claim 6, Raman teaches the software product wherein the additional audio output layer broadcasts a pre-selected sound associated with the non-textual display information (col.15, lines 10-20, *predetermined rules decide the sound associated with non-textual information*).

As per claim 7, Raman teaches the software product wherein the pre-selected sound is end-user-definable (col.9, lines 35-46).

As per claim 8, Raman teaches the software product wherein pre-selected sound is selected from the group consisting of dynamically generated sound and prerecorded digital audio (col.9, lines 35-41).

As per claim 9, Raman teaches the software product wherein the schema module includes a plurality of additional audio outputs layer to the broadcast of the textual display information to

audibly communicate a corresponding plurality of non-textual display information in

substantially concurrent fashion with the synthesized text (col.3, lines 3-7; col.15, lines 18-20).

Claim 17 is similar in scope to the combination of claims 3-4 and 7, and is therefore

rejected under similar rationale.

Claim 18 is similar in scope to the combination of claims 3 and 7-8, and is therefore

rejected under similar rationale.

Claim 19 is similar in scope to claim 7, and is therefore rejected under similar rationale.

As per claim 20, Raman teaches the software product wherein a plurality of end-user

schema definitions are assignable to specific resident software applications (col.19, lines 27-38).

As per claim 21, Raman teaches the software product wherein end-user schema

definitions generated by an end user are shareable with other users (col.19, lines 27-38, *rules can*

be shared to other users through a file).

As per claim 22, MacKenty teaches non-textual display information to be selected from

the group consisting of hyperlink settings, data entry forms, and graphic user interface

configuration (MacKenty, col.8, lines 1-25).

As per claim 23, Raman teaches the software product wherein the non-textual display

information is style information (col.20, lines 7-10).

3.   Claims 10-13, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Raman et al. ("Raman", US 5,572,625) and MacKenty et al. ("MacKenty", US 6,085,161) in

view of Giuliani et al. ("Giuliani", US 2002/0105496).

As per claim 10, the product of Raman and MacKenty teaches outputting of textual and non-textual display information (Raman, col.3, lines 44-50). However, the product of Raman and MacKenty does not teach the output device to be a Braille display. Giuliani teaches the output of textual and non-textual display information to be a Braille display (para.3, lines 1-4; para.18, line 4; para.21, lines 9-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include Giuliani's teaching with the product of Raman and MacKenty in order to allow the blind the opportunity to read and determine the attributes associated with text via different senses.

As per claim 11, Giuliani teaches the software product wherein the non-textual display information is selected from the group consisting of font format, paragraph format, bulleting, numbering, borders, shading, column format, page breaks, section breaks, tab settings, table structure, image data, case settings, comment field locations, hyperlink settings, data entry forms, and graphic user interface configuration (Giuliani, para.42, lines 6-9; para.43).

As per claim 12, Giuliani teaches the software product wherein the schema module modifies the broadcast of the textual display information to communicate the non-textual display information by altering tactile characteristics of the Braille display (Giuliani, para.42-43).

As per claim 13, Giuliani teaches the software product wherein the tactile characteristics of the Braille displayed modified by the schema module are selected from the group consisting of display speed, pin protrusion level, pin retraction level and pin vibration (Giuliani, para.42-43).

As per claim 15, the product of Raman and MacKenty teaches the software product of claim 1 wherein the output device is a speech synthesizer (Raman, col.4, lines 50-55). However,

the product of Raman and MacKenty does not disclose the output device to be an array of a

speech synthesizer and a Braille display, the speech synthesizer audibly broadcasts textual

display information and the Braille display tactically outputs non-textual display information in

substantially concurrent fashion. Giuliani teaches the output of textual and non-textual display

information to be on a Braille display (Giuliani, para.3, lines 1-4; para.18, line 4; para.21, lines

9-11). It would have been obvious to one of ordinary skill in the art at the time of the invention

to combine Giuliani's teaching with the product of Raman and MacKenty in order to allow blind

users the opportunity to listen to and visualize the display through touch.

As per claim 24, the product of Raman and MacKenty teaches software product of claim

23 wherein the non-textual display information is style information (Raman, col.20, lines 7-10).

However, the product of Raman and MacKenty does not explicitly teach the style information to

be selected from the group consisting of bold, italics, underline and font color. Giuliani teaches

the output of non-textual display information to consist of bold text (para.42). It would have

been obvious to one of ordinary skill in the art at the time of the invention to combine Giuliani's

teaching with the product of Raman and MacKenty in order to enhance the user's reading

experience.

4.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Raman et al.

("Raman", US 5,572,625) and MacKenty et al. ("MacKenty", US 6,085,161) in view of Burchart

("Burchart", US 4,836,784).

As per claim 14, the product of Raman and MacKenty teaches the software product of

claim 1 to communicate textual and non-textual display information to an output device (Raman,

col.4, lines 48-55). However, Raman does not teach the output device to be an array of two

Braille displays, a first Braille display outputs textual display information and a second Braille

display outputs non-textual display information in substantially concurrent fashion. Burchart

teaches the output of both textual information and graphics on an array of Braille displays (Fig.2-

6; col.5, lines 38-64; claim1). It would have been obvious to one of ordinary skill in the art at the

time of the invention to incorporate Burchart's teaching with the product of Raman and

MacKenty in order to communicate graphic displays in addition to textual information to

accommodate the blind and thereby enhancing the viewing experience of the blind user

(Burchart, col.1, lines 25-34, 47-52).

5.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Raman et al.

("Raman", US 5,572,625) and MacKenty et al. ("MacKenty", US 6,085,161) in view of Rohen

("Rohen", US 5,186,629).

        As per claim 16, the product of Raman and MacKenty teaches outputting of textual and

non-textual display information to a speech synthesizer (Raman, col.4, lines 50-55). However,

the product of Raman and MacKenty does not teach the output device to be an array of a speech

synthesizer and a vibratory apparatus, the speech synthesizer audibly broadcasts textual display

information and the vibratory apparatus vibrates at pre-selected frequencies responsive to non-

textual display information in substantially concurrent fashion. Rohen teaches an output device

which audibly and tactilely outputs textual and non-textual display information respectively

(col.6, lines 23-32; col.7, lines 7-16). It would have been obvious to one of ordinary skill in the

art at the time of the invention to include Rohen's teaching with the product of Raman and

MacKenty in order to allow blind users the opportunity to visualize the display through the use

of multiple sensory functions rather than solely by means of sound.

(10) Response to Argument

Applicant argued the following:

a) Neither Raman, Guiliani, Burchart, nor Rohen teach a screen reader software.

b) MacKenty teaches away from a screen reader software.

The Examiner disagrees for the following reasons:

Per a), in response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections are based

on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In

re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The limitation of a screen

reader is taught by MacKenty (*Fig.1, reader 14*) in combination with Raman therefore Raman,

Guilliani, Burchart nor Rohen are not relied upon to teach the screen reader software.

Per b), MacKenty does not teach away from a screen reader but rather is an improvement

upon screen readers. MacKenty clearly teaches a screen reader (Fig.1, *reader 14*; col.3, lines 14-

15; col. 4, line 59- col.5, line 5). As stated by Applicant screen readers transfer visual data into

auditory output which is clearly taught by MacKenty (col. 4, line 59- col.5, line 5).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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